UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,509	01/30/2004	Mihal Lazaridis	555255012690	6885

33070 7590 12/21/2007		EXAMINER
JOSEPH M. SAUER		WOZNIAK, JAMES S
JONES DAY REAVIS & POGUE		
NORTH POINT, 901 LAKESIDE AVENUE	ART UNIT	PAPER NUMBER
CLEVELAND, OH 44114	2626	

MAIL DATE	DELIVERY MODE
12/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/768,509	LAZARIDIS ET AL.
	Examiner	Art Unit	
	James S. Wozniak	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 October 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-13,37-45 and 48-50</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2-13,37-45 and 48-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the office action from 7/26/2007, the applicant has submitted an amendment, filed 10/24/2007, amending claims 2, 37, and 48 to cancel the limitation regarding the lack of a delimiter, while arguing to traverse the art rejection based on the limitation regarding displaying a list of probable complete commands while receiving an abbreviated command *(Amendment, Pages 7-9)*. The applicant's arguments have been fully considered but are moot with respect to the new grounds of rejection, necessitated by the amended claims and further in view of Eide *("Valet: An Intelligent Unix Shell Interface," 1995)*.

2.   In response to the Terminal Disclaimer filed on 10/24/2007, the examiner has withdrawn the previous non-statutory double patenting rejection.

3.   In response to amended claims 2, 37, and 48, the examiner has withdrawn the previous 35 U.S.C. 112, first paragraph rejection directed towards new matter.

Response to Arguments

4.   Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

In the current amendment, the applicant has removed the limitation regarding the lack of

a user-entered delimiter denoting an end to entry of an abbreviated textual command. As such,

the examiner notes that the current claims have reverted back to those submitted in the

amendment 12/12/2006 and, likewise, the Eide reference is again applied in the below rejections.

Although the examiner notes that it is worth pointing out that the incorporation of the teachings

of Snapper et al *(U.S. Patent: 7,216,292)* into the teachings of Beauregard *(U.S. Patent:*

5,974,413) would be recognized by one of ordinary skill in the art as being beneficial, the

applicant's arguments with respect to this combination are moot due to the new grounds of

rejection further in view of Eide and necessitated by the amended claims. In arguendo, it is

worth pointing out that this benefit though would be recognized by one of ordinary skill in the art

because Snapper teaches the general concept of providing a user with a more efficient means by

which to enter text into an interface *(Col. 8, Lines 5-12; Col. 13, Line 59- Col. 14, Line 5; Col. 1,*

Lines 25-34; and Col. 10, Lines 45-60). This general concept of looking up and providing full

text entries corresponding to partial text entries in the process of being entered, here clearly

evidenced in the teachings of Snapper, is commonly utilized in phones and other general

computing systems. In Beauregard, the form a text entry takes is an abbreviated natural

language text command. Thus, by combining the teachings of Beauregard and Snapper, one of

ordinary skill in the art would realize that the abbreviated natural language commands in

Beauregard could be entered more quickly, easily, and efficiently. As noted above, however,

these arguments are moot with respect to the new grounds of rejection further in view of Eide

and necessitated by the amended claims.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 2-5 and 9-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Beauregard et al *(U.S. Patent: 5,974,413)* in view of Eide *("Valet: An Intelligent Unix Shell*

Interface," 1995) and further in view of Laursen et al *(U.S. Patent: 6,288,718)*.

With respect to **Claim 2**, Beauregard discloses:

Receiving an abbreviated textual command in a natural language search engine *(text*

input, Col. 7, Line 58- Col. 8, Line 49; command code words, Col. 15, Lines 18-58; and

wordbase search, Col. 16, Line 65- Col. 17, Line 31);

While receiving the abbreviated textual command performing the steps of:

Searching a natural language database that stores a data set of abbreviated textual

commands and associated application commands *(searching a "wordbase" database containing*

command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31);

Displaying a list of probable complete commands matching the currently received portion

of the abbreviated textual command *(displaying multiple commands in a window that may*

correspond to a entered command word, Col. 42, Lines 27-50).

Although Beauregard teaches a means for presenting a list of probable commands to a

user and further discloses recording command history information *(Col. 17, Lines 16-31)*,

Beauregard does not specifically suggest utilizing the history information in determining the one

or more probable commands. Eide, however, recites a means for determining probable input

commands that utilizes a command history *(user input history used in determining a text*

command, Pages 28-31). Eide further teaches the ability to perform a command search process

similar to that of the claimed invention while receiving a textual input command *(pages 37-38)*.

Beauregard and Eide are analogous art because they are from a similar field of endeavor

in text command systems. Thus, it would have been obvious to one of ordinary skill in the art, at

the time of invention, to modify the teachings of Beauregard with the means for determining

probable input commands during text command reception utilizing a command history as taught

by Ramaswamy in order to reduce tedium and typing errors in command entry while increasing

command match frequency *(Eide, Pages 29 and 37)*.

Beauregard and Eide do not specifically suggest text entry and list narrowing using a

portable device, however, Laursen discloses a potable device that progressively reduces a list of

potential text entries with each entered character *(Col. 2, Lines 1-24)*.

Beauregard, Eide, and Laursen are analogous art because they are from a similar field of

endeavor in user interfaces utilizing text entry. Thus, it would have been obvious to one of

ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard in view

of Eide with the portable device embodiment taught by Laursen in order to further extend the

command entry system to other well-known types of portable computing devices *(text command*

invention is portable to any type of computer, Beauregard, Col. 43, Lines 23-31).

With respect to **Claim 3**, Beauregard further discloses:

If a user selects a complete command from the list, then setting the complete command as the abbreviated textual command, and executing the associated application command *(selection of a displayed script command and script execution, Col. 43, Lines 1-13)*.

With respect to **Claim 4**, Beauregard additionally recites:

If a user does not select a complete command from the list, then receiving an entire abbreviated textual command in the natural language search engine *(no match is found and a next action word is accepted, Col. 18, Lines 1-4)*.

With respect to **Claim 5**, Eide further recites:

If the abbreviated textual command has an exact match in the data set, then setting the exact match as a user command *(Pages 37-38)*;

If the abbreviated textual command does not have an exact match in the data set, then analyzing historical preferences to determine if the abbreviated textual command has a probable match in the data set *(misspelled command corrections, Pages 94-95)*;

If the abbreviated textual command has a probable match in the data set, then setting the probable match as the user command *(Pages 94-95 and returning a single probable command)*;

If the abbreviated textual command does not have a probable match in the data set then presenting a list of possible command, receiving a command choice and setting the command choice as the user command (suggest probable command, Pages 94-95); and

Executing the command *(Pages 37-38)*.

With respect to **Claim 9**, Beauregard further discloses:

The abbreviated textual command has a first component and a second component, wherein the first component represents a desired application command, and the second

component represents a desired application tag (text command and application identifying tag,

Col. 11, Lines 18-26); and

The natural language database stores a data set of abbreviated textual commands and

associated application commands and tags *(database storing command text and application tags,*

Col. 34, Lines 8-18).

With respect to **Claim 10,** Beauregard further discloses:

The abbreviated textual command is entered into a graphical dialog box *(action box, Col.*

27, Line 66- Col. 28, Line 9).

With respect to **Claim 11,** Beauregard further discloses:

The natural language search engine can receive the abbreviated textual command while

any of the software applications are executing *(Col. 10, Lines 3-8).*

With respect to **Claim 12,** Eide further discloses utilizing history data in misspelling

correction *(Pages 94-95).*

With respect to **Claim 13,** Eide further recites:

The list of possible commands includes a set of generic application commands *(Page 97).*

7.   **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et

al *(U.S. Patent: 5,974,413)* in view of Eide *("Valet: An Intelligent Unix Shell Interface," 1995)*

in view of Laursen et al *(U.S. Patent: 6,288,718)* and further in view of Ramaswamy et al *(U.S.*

Patent: 6,622,119).

With respect to **Claim 6,** Beauregard in view of Eide and further in view of Laursen

teaches the software application launching method utilizing history information, as applied to

Claims 2 and 5. Beauregard in view of Eide and further in view of Laursen does not specifically

suggest probability factors associated with historical command preferences nor the determination

of a probably command as having greater than a threshold probability value however,

Ramaswamy further discloses:

The step of analyzing historical preferences is performed using a set of probability factors

that are generated based on historical preferences, where the abbreviated textual command has a

probable match in the data set when a probability factor associated with the probable match is

greater than a predetermined value *(probabilities based on user history, Col. 5, Lines 19-45; Col.*

6, Lines 11-28; and probability threshold, Col. 8, Lines 3-24).

Beauregard, Eide, Laursen, and Ramaswamy are analogous art because they are from a

similar field of endeavor in language command systems. Thus, it would have been obvious to

one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard

with the means for determining probable input commands utilizing a command history as taught

by Ramaswamy in order to achieve improved natural language understanding accuracy through

the use of user regularity scores *(Ramaswamy, Col. 1, Lines 23-33).*

With respect to **Claim 7**, Ramaswamy further discloses:

The predetermined value is defined by a user *(predetermined threshold that would*

inherently be set by some type of user, Col. 8, Lines 3-24).

With respect to **Claim 8**, Ramaswamy additionally recites:

Adjusting the set of probability factors each time the abbreviated textual command is

entered into the hand-held device *(using input commands to adapt command prediction for a*

particular user, Col. 3, Lines 14-26; Col. 9, Lines 9-31).

8.   **Claims 37-45 and 48-50** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Beauregard et al *(U.S. Patent: 5,974,413)* in view of Eide *("Valet: An Intelligent Unix Shell*

Interface," 1995).

With respect to **Claim 37**, Beauregard discloses:

Receiving an abbreviated textual command in a natural language search engine *(text*

input, Col. 7, Line 58- Col. 8, Line 49; command code words, Col. 15, Lines 18-58; and

wordbase search, Col. 16, Line 65- Col. 17, Line 31);

While receiving the abbreviated textual command performing the steps of:

Searching a natural language database that stores a data set of abbreviated textual

commands and associated application commands *(searching a "wordbase" database containing*

command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31);

Displaying a list of probable complete commands matching the currently received portion

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commands that utilizes a command history *(user input history used in determining a text*

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similar to that of the claimed invention while receiving a textual input command *(pages 37-38).*

Beauregard and Eide are analogous art because they are from a similar field of endeavor

in text command systems. Thus, it would have been obvious to one of ordinary skill in the art, at

the time of invention, to modify the teachings of Beauregard with the means for determining

probable input commands during text command reception utilizing a command history as taught

by Ramaswamy in order to reduce tedium and typing errors in command entry while increasing

command match frequency *(Eide, Pages 29 and 37)*.

With respect to **Claim 38**, Eide further recites:

Displaying the probable subset of the complete commands to the user (Page 37).

With respect to **Claim 39**, Eide additionally recites:

Receiving an indication of which of the displayed complete commands a user chooses

and executing the chosen complete command *(Page 37)*.

With respect to **Claim 40**, Eide further discloses:

Receiving a further portion of the abbreviated textual command and narrowing the

probable subset based on the further portion received *(Page 37)*.

With respect to **Claim 41**, Eide recites:

When the probable subset consists of only one complete command, executing that one

complete command *(Page 37)*.

With respect to **Claim 42**, Beauregard further discloses uses-defined textual commands

(Col. 9, Lines 19-22).

With respect to **Claim 43**, Eide discloses the command history information as applied to

Claim 2.

With respect to **Claims 44-45**, Eide recites past commands selected more than half of the

time *(Pages 29-30; Pages 37-38; Pages 94-95)*.

Claim 48-49 contains subject matter similar to Claim 37, and thus, is rejected for the

same reasons.

With respect to **Claim 50**, Eide discloses the historical preference data used for text entry

completion, as applied to Claim 37.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
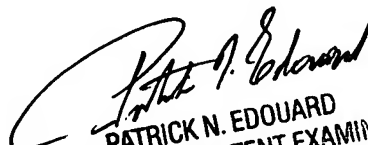
A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632.

The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
12/4/2007

PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER